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PAT-NO: JP410124766A

DOCUMENT-  
IDENTIFIER: JP 10124766 ATITLE: ENVIRONMENT MONITORING SYSTEM, ABNORMALITY DETECTING  
METHOD AND DEVICE THEREFOR

PUBN-DATE: May 15, 1998

## INVENTOR-INFORMATION:

NAME COUNTRY  
KIMURA, TETSUO

INT-CL (IPC): G08B017/00 , G08B017/06 , G08B031/00

## ABSTRACT:

PROBLEM TO BE SOLVED: To provide an environment monitoring system and an abnormality detecting method in which malfunction due to the delicate change of environment or the influence of noise or the like can be reduced, and exact abnormality detection can be attained at the time of detecting abnormality such as fire by using a Mahalanobis distance.

SOLUTION: At the time of forming a Mahalanobis space in a normal state, not only (q) sets of basic data sets DS1-DSq obtained from each sensor S1-Sq in a normal time under (q) kinds of basic environment conditions E1-Eq but also (w) sets of job spot reference data sets DSq+1-DSq+w obtained from each sensor S1-Sn in a normal time under (w) kinds of job spot environment conditions Eq+1-Eq+w are considered. Then, the total (q+w) sets of data sets DS1-DSq+w in a normal time of the (q) sets of basic data sets DS1-DSq and the (w) sets of job spot reference data sets DSq+1-DSq+w are defined as a reference data set, and the Mahalanobis space being a reference, that is, a reference Mahalanobis distance Dj2 is calculated.

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## Abstract Text - FPAR (1):

PROBLEM TO BE SOLVED: To provide an environment monitoring system and an abnormality detecting method in which malfunction due to the delicate change of environment or the influence of noise or the like can be reduced, and exact abnormality detection can be attained at the time of detecting abnormality such as fire by using a Mahalanobis distance.

## Abstract Text - FPAR (2):

**SOLUTION:** At the time of forming a Mahalanobis space in a normal state, not only (q) sets of basic data sets DS1-DSq obtained from each sensor S1-Sq in a normal time under (q) kinds of basic environment conditions E1-Eq but also (w) sets of job spot reference data sets DSq+1-DSq+w obtained from each sensor S1-Sn in a normal time under (w) kinds of job spot environment conditions Eq+1-Eq+w are considered. Then, the total (q+w) sets of data sets DS1-DSq+w in a normal time of the (q) sets of basic data sets DS1-DSq and the (w) sets of job spot reference data sets DSq+1-DSq+w are defined as a reference data set, and the Mahalanobis space being a reference, that is, a reference Mahalanobis distance Dj2 is calculated.

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